NEUROBIOLOGY OF AGING

111

VOLUME 2 NUMBER 1 SPRING 1981

CONTENTS

Editorial Comment 1

Age-related alterations in neurotransmitter receptors: An electrophysiological and biochemical analysis. LIPPA, A. S., D. J. CRITCHETT, F. EHLERT, H. I. YAMAMURA, S. J. ENNA and R. T. BARTUS 3

Cortical somatostatin-like immunoreactivity in cases of Alzheimer's disease and senile dementia of the Alzheimer type. DAVIES, P. and R. D. TERRY 9

Senescent pathology of cerebellum: Purkinje neurons and their parallel fiber afferents. ROGERS, J., S. F. ZORNETZER and F. E. BLOOM 15

Nuclear envelope invaginations in hamster pyramidal cells during development and aging. BUSCHMANN, MB. T., J. S. GEOFFROY and A. LAVELLE 27

Neuron numbers in locus coeruleus do not change with age in Fisher 344 rat. GOLDMAN, G. and P. D. COLEMAN 33

The effect of hypoxia on monoamine levels in discrete regions of aged rat brain. ROUBEIN, I. F., L. J. EMBREE, D. W. JACKSON and F. S. ORDWAY 37

Age and neurochemical correlates of radial maze performance in rats. INGRAM, D. K., E. D. LONDON and C. L. GOODRICK 41

Effect of age on sensitivity to pain and brain opiate receptors. HESS, G. D., J. A. JOSEPH and G. S. ROTH 49

Central amine metabolism in Alzheimer's disease: *In vivo* relationship to cognitive deficit. MANN, J. J., M. STANLEY, A. NEOPHYTIDES, M. J. DE LEON, S. H. FERRIS and S. GERSHON 57

Morphological changes in the cerebellar cortex of aging *Macaca nemestrina*. NANDY, K. 61

Meeting Report. *Symposium on Geriatric Neuropsychopharmacology* 65

CALENDER 73

ANNOUNCEMENTS 75

12829

NEUROBIOLOGY OF AGING

VOLUME 2 NUMBER 2 SUMMER 1981

CONTENTS

Editorial Comment 81

Benzodiazepine receptor binding in young, mature and senescent rat brain and kidney. PEDIGO, N. W., H. SCHOEMAKER, M. MORELLI, J. N. McDOUGAL, J. B. MALICK, T. F. BURKS and H. I. YAMAMURA 83

Age related changes in the endocrine hypothalamus: I. Tanycytes and the blood-brain-cerebrospinal fluid barrier. SCOTT, D. E. and J. R. SLADEK, JR. 89

Changes in noradrenergic neurotransmission in rat cerebellum during aging. MARWAHA, J., B. J. HOFFER and R. FREEDMAN 95

Presynaptic cholinergic mechanisms in brain of aged rats with memory impairments. SHERMAN, K. A., J. E. KUSTER, R. L. DEAN, R. T. BARTUS and E. FRIEDMAN 99

Profound effects of combining choline and piracetam on memory enhancement and cholinergic function in aged rats. BARTUS, R. T., R. L. DEAN, III, K. A. SHERMAN, E. FRIEDMAN and B. BEER 105

Simple and choice reaction time in dementia: Clinical implications. PIROZZOLO, F. J., K. J. CHRISTENSEN, K. M. OGLE, E. C. HANSCH and W. G. THOMPSON .. 113

Age related changes in the control of prolactin secretion in the female rat. STEGER, R. W. 119

Plasma and pituitary concentrations of LH, FSH and prolactin after injection of GnRH in aged female C57BL/6 mice. COLLINS, T. J., T. A. PARKENING and E. R. SMITH 125

Preservation of retinal structure in aged pigmented mice. TRACHIMOWICZ, R. A., L. J. FISHER and J. W. HINDS 133

Age-related changes in brain RNA of noise stressed mice. ZERWECK, C. R., R. B. MITCHELL and A. ANTHONY 143

Meeting Report. ***Pharmacology of Memory Disorders Associated with Aging*** 149

News from The National Institutes of Health 153

Age Page 155

CALENDAR 157

ANNOUNCEMENTS 159

82 7 4248R2 4 181 1XL 2128

NEUROBIOLOGY OF AGING

VOLUME 2 NUMBER 3 FALL 1981

CONTENTS

Neurotransmitter and carbohydrate metabolism during aging and mild hypoxia. GIBSON, G. E., C. PETERSON and J. SANSONE 165

Molecular mechanism of sweet taste: Relationship of hydrogen bonding to taste sensitivity for both young and elderly. SCHIFFMAN, S. S., M. G. LINDLEY, T. B. CLARK and C. MAKINO 173

Life-span alterations in visually evoked potentials and inhibitory function. DUSTMAN, R. E., E. W. SNYDER and C. J. SCHLEHUBER 187

Aging and haloperidol-induced dopamine turnover in the nigro-striatal pathway of C57BL/6J mice. SEVERSON, J. A., H. H. OSTERBURG and C. E. FINCH 193

Involvement of hippocampal serotonergic activity in age-related changes in exploratory behavior. BRENNAN, M. J., A. DALLOB and E. FRIEDMAN 199

Choline chloride fails to improve cognition in Alzheimer's disease. THAL, L. J., W. ROSEN, N. S. SHARPLESS and H. CRYSTAL 205

Behavioral effects of phosphatidylserine in aged rats. DRAGO, F., P. L. CANONICO and U. SCAPAGNINI 209

Effects of aging on luteinizing hormone release in different physiological states of the female golden hamster. CHEN, H. J. 215

Differential effects of age on motor performance in two mouse strains. INGRAM, D. K., E. D. LONDON, M. A. REYNOLDS, S. B. WALLER and C. L. GOODRICK 221

BRIEF COMMUNICATION

Rat dopaminergic function in the retina during aging. RICCARDI, F., V. COVELLI, P. F. SPANO, S. GOVONI and M. TRABUCCHI 229

MEETING REPORT. ***Proceedings of the Manhattan VAMC-NYU Department of Psychiatry Symposium on Alzheimer's Disease*** 233

NEWS FROM THE NATIONAL INSTITUTES OF HEALTH 235

AGE PAGE 237

CALENDAR 239

ANNOUNCEMENTS 241

NEUROBIOLOGY OF AGING

VOLUME 2 NUMBER 4 WINTER 1981

CONTENTS

ACKNOWLEDGMENT 249

Neurochemical activities in human temporal lobe related to aging and Alzheimer-type changes. PERRY, E. K., G. BLESSED, B. E. TOMLINSON, R. H. PERRY, T. J. CROW, A. J. CROSS, G. J. DOCKRAY, R. DIMALINE and A. ARREGUI 251

A survey of substance P, somatostatin, and neurotensin levels in aging in the rat and human central nervous system. BUCK, S. H., P. P. DESHMUKH, T. F. BURKS and H. I. YAMAMURA 257

Hippocampal aging in rats: A morphometric study of multiple variables in semithin sections. LANDFIELD, P. W., L. D. BRAUN, T. A. PITLER, J. D. LINDSEY and G. LYNCH . 265

Histocompatibility antigens (HLA) and patterns of cognitive loss in dementia of the Alzheimer type. COHEN, D., C. EISDORFER and R. L. WALFORD 277

Immunoreactive β-endorphin in the plasma, pituitary and hypothalamus of young and old male rats. FORMAN, L. J., W. E. SONNTAG, D. A. VAN VUGT and J. MEITES 281

Changes with age in cerebral capillary morphology. BURNS, E. M., T. W. KRUCKEBERG and P. K. GAETANO 285

Vasopressin and renin response to dehydration in aged rats. SLADEK, C. D., T. H. McNEILL, C. M. GREGG, M. L. BLAIR and R. B. BAGGS 293

Life-span changes in visually evoked potentials at central scalp. DUSTMAN, R. E. and E. W. SNYDER 303

Functional interaction between benzodiazepine and GABA recognition sites in aged rats. CALDERINI, G., A. C. BONETTI, A. ALDINIO, G. SAVOINI, B. DI PERRI, G. BIGGIO and G. TOFFANO 309

Age and sex effects on taste of sucrose, NaCl, citric acid and caffeine. HYDE, R. J. and R. P. FELLER 315

MEETING REPORT. ***Workshop on Assessment for Geriatric Psychopharmacology*** 319

NEWS FROM THE NATIONAL INSTITUTES OF HEALTH 323

NEWS FROM THE NATIONAL INSTITUTE OF MENTAL HEALTH 327

AGE PAGE 329

CALENDAR 331

ANNOUNCEMENTS 333

INDEX TO VOLUME 2 337